NEW SECTION

WAC 173-415-015 Applicability. (1) In addition to the general applicability of chapter 173-400 WAC to all emission sources, all primary aluminum reduction plants are required to meet the emissions standards of this chapter. Specific emissions standards and requirements listed in this chapter shall supersede the general emissions standards and general requirements in chapter 173-400 WAC.

(2) All primary aluminum reduction plants are required to meet applicable National Emissions Standards for Hazardous Air Pollutants (NESHAPs). New primary aluminum reduction plants must meet federal New Source Performance Standards (NSPS).

(3) In this rule, whenever a federal regulation is cited, the most recent version that has been adopted into Washington Administrative Code is the version of the federal regulation that is referenced. These most recent adoptions by reference can be found in chapter 173-400 WAC.

AMENDATORY SECTION (Amending Order 90-06, filed 2/19/91, effective 3/22/91)

WAC 173-415-020 Definitions. The definitions of terms contained in chapter 173-400 WAC are incorporated into this chapter by reference. Unless a different meaning is clearly required by context, the following words and phrases as used in this chapter, shall have the following meanings:

(1) ((~~"Fluorides" means compounds of the element fluorine.~~

~~(2) "Forage" means grasses, pasture and other vegetation that is normally consumed or is intended to be consumed by livestock.~~

~~(3) "Primary aluminum plant" or~~)) "Potline" means a single discreet group of electrolytic reduction cells connected in series, in which alumina is reduced to form aluminum.

(2) "Primary aluminum reduction plant" ((~~or "primary aluminum mill"~~)) means ((~~a plant which produces aluminum metal from aluminum oxide (alumina)~~)) any facility manufacturing aluminum by electrolytic reduction. For the purposes of this regulation "primary aluminum reduction plant" is equivalent to "source."

((~~(4)~~)) (3) "((~~Potline~~)) Primary emission control system" means the equipment ((~~and procedures designed to collect and remove contaminants from the exhaust gases which are captured at the pot~~)) used to capture the gases and particulate matter evacuated directly from the reduction cell and the emission control device(s) used to

remove pollutants prior to discharge of the cleaned gas to the atmosphere. A roof scrubber is not part of the primary control system.

(4) "Total fluorides (TF)" means elemental fluorine and all fluoride compounds as measured by Methods 13A, 13B or 14A in 40 CFR Part 60 Appendix A or by an EPA approved alternative method.

AMENDATORY SECTION (Amending Order 90-06, filed 2/19/91, effective 3/22/91)

WAC 173-415-030 Emission standards. ((~~In addition to the general applicability of chapters 173-400 and 173-490 WAC to all emission sources, all primary aluminum plants are required to meet the emission standards of this chapter. Specific emissions standards listed in this chapter will take precedence over the general emission standards of chapter 173-400 WAC.~~)) (1) Fluoride. The emission of total fluorides from a primary aluminum reduction plant shall meet the MACT requirements specified in 40 CFR 63 Subpart LL. If the department has reason to believe that adverse fluoride impacts are occurring in violation of chapter 173-481 WAC, a primary aluminum reduction plant must establish, in response to a request from the department, an ambient air and/or forage monitoring program approved by the department as required by WAC 173-481-150.

((~~(a) The emission of gaseous and particulate fluorides for all emissions units within a primary aluminum plant shall be restricted so that the plant's emissions will not cause ambient air and forage standards for fluorides established by chapter 173-481 WAC to be exceeded outside the property controlled by the aluminum plant owner(s) or operator(s).~~

~~(b) Each potline primary emission control system shall be designed so that the control of fluoride emissions will be equivalent to a total fluoride collection efficiency of: (i) Eighty percent for vertical stud soderberg and side worked prebake pots, (ii) eighty-five percent for horizontal stud soderberg pots, and (iii) ninety-five percent for center worked prebake pots. A primary emission control system with a design removal efficiency of at least ninety-five percent of the fluoride collected is required.~~))

(2) Particulate. The total emission of particulate matter to the atmosphere from the reduction process (potlines) shall be reduced to the lowest level consistent with reasonably available control technology (RACT) for primary aluminum reduction plants. The emission of solid particulate shall not exceed 7.5 grams per kilogram (fifteen pounds per ton) of aluminum produced on a daily basis. Aluminum produced shall be calculated by the method used to determine aluminum production rate in 40 CFR 63.847(e)(6).

(3) Visible emissions. Visible emissions from any emissions

unit in a primary aluminum reduction plant shall not exceed an average twenty percent opacity for more than six consecutive minutes in any sixty minute period. This provision shall not apply:

(a) When the presence of uncombined water is the only reason for the opacity of the plume to exceed twenty percent; or

(b) When an alternate opacity limit has been established under RCW 70.94.331 (2)(c).

(4) Fugitive emissions. Each primary aluminum reduction plant shall use RACT to prevent fugitive emissions. Fugitive dust is included in fugitive emissions.

(5) Sulfur dioxide.

(a) Total emissions of sulfur dioxide from all emissions units shall not exceed thirty grams of sulfur dioxide per kilogram of aluminum produced on a monthly average (sixty pounds per ton). Those primary aluminum plants which were in excess of the above sulfur dioxide limit on January 1, 1978, will be allowed to emit at the January 1, 1978, level of emissions provided that the owners or operators did demonstrate to ecology by July 1, 1981, by use of modeling and ambient measurements, that the emissions will not cause the ambient standard to be exceeded, and that the limits are placed in a regulatory order(s).

(b) In no case shall any plant cause or permit the emission of a gas containing sulfur dioxide in excess of one thousand parts per million corrected to dry standard conditions for an hourly average.

(6) Operation and maintenance (O&M). At all times, including periods of abnormal operation and upset conditions, owners and operators shall, to the extent practicable, maintain and operate an affected facility, ((~~and operate and maintain air pollution control equipment associated with such facility~~)) including associated air pollution control equipment, in a manner consistent with good air pollution control practice. ((~~A plant may elect to establish a program, subject to the approval of ecology, for monitoring each potroom in order to demonstrate good operation and maintenance.~~)) Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to ecology which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. The means for demonstrating ongoing compliance with good O&M may include, but not be limited to: More frequent source testing, prescriptive procedures or inspections, control values for emissions at values less than the applicable regulatory requirements and that function as an investigative trigger rather than as a limit, collection and efficiency requirements, or the use of CEMs.

(7) Source testing. To demonstrate compliance with this chapter, the testing provisions of chapter 173-400 WAC ((~~173-400-105 shall apply to all sources to which this chapter is~~)) and MACT requirements as specified in 40 CFR 63 Subpart LL shall be used as applicable.

AMENDATORY SECTION (Amending Order 90-06, filed 2/19/91, effective 3/22/91)

WAC 173-415-060 Monitoring and reporting. (1) When requested by the department, each primary aluminum reduction plant shall conduct routine monitoring of emissions, ambient air, and forage in accordance with a program that has been approved by the department of ecology. Results of monitoring shall be reported within thirty days of the end of each calendar month ((~~and~~)). In addition to the information required by the Primary Aluminum MACT, 40 CFR 63 Subpart LL, the approved program shall include data as follows:

(a) ((~~Ambient air: Twenty-four hour concentrations of gaseous fluoride in the ambient air expressed in micrograms of hydrogen fluoride per cubic meter of ambient air.~~

~~(b) Forage: Concentrations of fluoride in forage expressed in parts per million of fluoride on a dried weight basis.~~

~~(c)~~)) Particulate emissions: Results of all emission sampling conducted during the month for particulates, shall be expressed in ((~~grains per standard dry cubic foot, in pounds per day, and in pounds per ton of aluminum produced~~)) units used in the applicable requirements or in units specified in the monitoring plan. The method of calculating pounds per ton shall be as specified in the approved monitoring programs. For each potline, particulate data shall be reported as total particulates and percentage of fluoride ion contained therein. For other units at a primary aluminum reduction plant, particulate data shall be reported as total particulates.

Compliance with WAC 173-415-030(2) shall be determined by measurements of emissions from the potline primary control system plus measurements of emissions from the potline roof ((~~monitor~~)).

((~~(d)~~)) (b) Fluoride emissions: Results of all sampling conducted during the month for fluoride emissions((~~. All results shall be expressed as hydrogen fluoride in parts per million on a volume basis and pounds per day of hydrogen fluoride~~)) shall be reported in pounds of total fluoride per ton of aluminum produced. Aluminum produced shall be calculated by the method used to determine aluminum production rate in 40 CFR 63.847(e)(6).

((~~(e)~~)) (c) Other emission and ambient air data as specified in the approved monitoring program.

(2) Other data: ((~~For ecology to evaluate a plant's emissions or emission control program, each primary aluminum~~)) Each primary aluminum reduction plant shall furnish other data requested by the department of ecology to evaluate a plant's emission control program.

(3) Change in raw materials or fuel: Any change or series of changes in raw material or fuel which results in a cumulative increase in emissions of sulfur dioxide of five hundred tons per year or more over that stated in the 1979 emissions inventory ((~~required by WAC 173-415-080~~)) shall require the submittal of sufficient information to the department of ecology so that the effect upon ambient concentrations of sulfur dioxide can be determined. The department of ecology may issue regulatory orders

requiring controls to reduce the effect of such increases.

REPEALER

The following sections of the Washington Administrative Code are repealed:

WAC 173-415-040	Standards of performance.
WAC 173-415-045	Creditable stack height and dispersion techniques.
WAC 173-415-050	New source review (NSR).
WAC 173-415-051	Prevention of significant deterioration (PSD).
WAC 173-415-070	Report of startup, shutdown, breakdown or upset conditions.
WAC 173-415-080	Emission inventory.